

Two New Species of the Genus *Theridion* (Araneae: Theridiidae)
from the Yaeyama Islands and Haha-jima Island of
the Bonin Islands, Japan

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吉田 哉¹⁾: 八重山諸島および小笠原諸島母島産ヒメグモ属
(クモ目: ヒメグモ科) の 2 新種

Abstract Two new species of the genus *Theridion* belonging to the family Theridiidae are described from the Yaeyama Islands and Haha-jima Island of the Bonin Islands, Japan, under the names, *T. yaeyamense* (the Yaeyama Islands) and *T. ogasawarense* (the Bonin Islands).

Theridion is the largest genus of the family Theridiidae, and about 20 species of this genus are recorded from Japan (YAGINUMA, 1986; CHIKUNI, 1989). The *Theridion* spiders from the main islands of Japan were well studied, but those from the small islands belonging to the subtropical region were poorly known. In this paper, I wish to describe two new species of the genus *Theridion* from the Yaeyama Islands and the Bonin Islands.

All the type specimens of the new species described in this paper are deposited in the collection of the National Science Museum (Natural History), Tokyo.

Before going further, I wish to express my hearty thanks to Dr. Takeo YAGINUMA, Osaka, for his continuous guidance in the course of my study and to Mr. Akio TANIKAWA, Kanagawa, for offering valuable specimens for the present study.

Theridion yaeyamense sp. nov.

(Figs. 1–5)

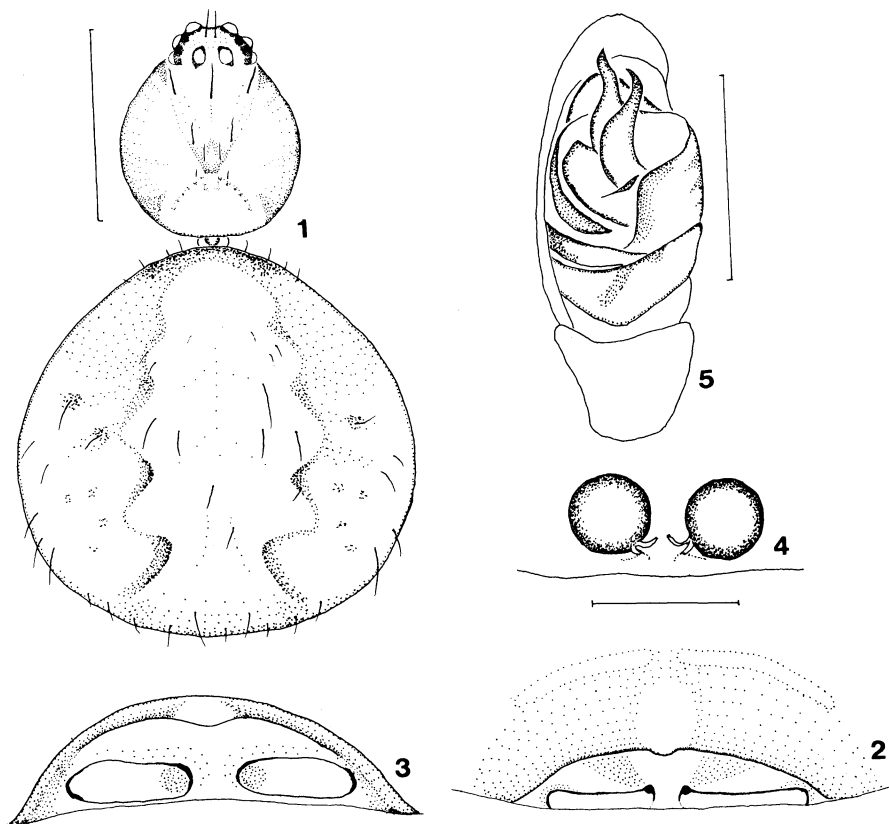
Female (holotype). Total length 3.16 mm. Carapace length 1.18 mm, width 1.11 mm. Abdomen length 2.16 mm, width 2.16 mm, height 2.58 mm. First leg: femur 2.47 mm; patella and tibia 2.73 mm; metatarsus 2.32 mm; tarsus 0.89 mm. Second patella and tibia 1.68 mm; third patella and tibia 1.05 mm; fourth patella and tibia 1.84 mm.

Carapace oval with a rectangular median furrow. Diameters of the anterior median eyes larger than the others (5:4). Anterior median eyes three-fifths their diameter apart and two-fifths from laterals. Posterior median eyes three-fourths their diameter apart and seven-eighths from laterals. Lateral eyes touching each

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Figs. 1-5. *Theridion yaeyamense* sp. nov. — 1, Female, dorsal view; 2, epigynum, ventral view; 3, same, posterior view; 4, female genitalia, dorsal view; 5, male palpus, ventral view. (Scales: 0.2 mm except for Fig. 1, 1 mm.)

other. Ratio of median ocular area, anterior width: posterior width: length = 12: 9: 10. Leg formula 1, 4, 2, 3. Abdomen globular, as long as wide, higher than long, with many macrosetae. Genital organ as shown in Figs. 2-4; epigynum with a pair of large openings.

Carapace, chelicerae, maxillae, labium and sternum brown with dusky flecks. Legs grayish brown; femora, tibiae, metatarsi and tarsi each with a distal blackish band; patellae with blackish flecks. Abdomen grayish brown with blackish flecks and white pigments as shown in Fig. 1; venter with blackish flecks around the spinnerets and between the anterior margin and the epigynum.

Male (allotype). Similar to female, but differs in the following points: Total length 2.00 mm. Carapace length 0.97 mm, width 0.84 mm. Abdomen length 1.13 mm, width 1.05 mm, height 1.18 mm. First leg: femur 2.00 mm; patella and tibia 2.24 mm; metatarsus 1.84 mm; tarsus 0.71 mm. Second patella and tibia 1.34 mm; third patella and tibia 0.82 mm; fourth patella and tibia 1.29 mm.

Diameters of the anterior median eyes and the posterior lateral eyes larger than

the others (4: 3). Anterior median eyes three-fourths their diameter apart and one-fourth from laterals. Posterior median eyes their diameter apart from each other and from laterals. Ratio of median ocular area, anterior width: posterior width: length=10: 8: 9. Palpal organ as shown in Fig. 5; conductor large and concave, embolus supported by conductor. Basal color grayish. Blackish flecks on the legs indistinct.

Type series. Holotype: ♀, Iriomote-jima Island, Okinawa Prefecture, Japan, 29-III-1985, A. TANIKAWA leg. (NSMT-Ar 3073). Allotype: ♂ and paratype: 1♀, Mt. Omoto-dake, Ishigaki-jima Island, Okinawa Prefecture, Japan, 1-VIII-1978, H. YOSHIDA leg. (NSMT-Ar 3074-3075).

Distribution. Japan: Yaeyama Islands (Ishigaki-jima and Iriomote-jima Islands).

Remarks. The present new species is similar to *T. sterninotatum* BÖSENBERG et STRAND, 1906, and *T. adamsoni* BERLAND, 1934, in coloration, but is distinguished from them by the shape of genital organ. The pair of large openings of the epigynum and the large and concave conductor of male palpus are the characteristics of this species.

Etymology. The specific name is an adjective derived from the Yaeyama Islands.

***Theridion ogasawarense* sp. nov.**

(Figs. 6-9)

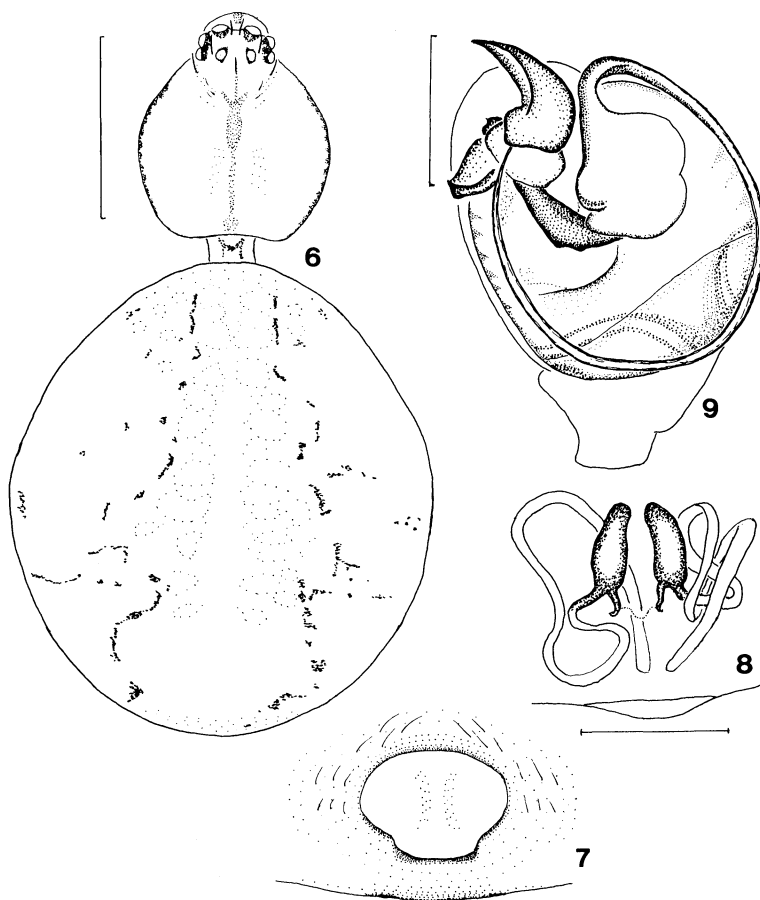
Female (holotype). Total length 4.05 mm. Carapace length 1.26 mm, width 1.11 mm. Abdomen length 2.47 mm, width 2.42 mm, height 2.63 mm. First leg: femur 2.11 mm; patella and tibia 2.37 mm; metatarsus 2.05 mm; tarsus 0.74 mm. Second patella and tibia 1.53 mm; third patella and tibia 1.00 mm; fourth patella and tibia 1.63 mm.

Carapace oval with a circular median furrow; clypeus projecting. Diameters of eyes nearly equal. Anterior median eyes six-sevenths their diameter apart and two-sevenths from laterals. Posterior median eyes six-sevenths their diameter apart and four-sevenths from laterals. Lateral eyes touching each other. Ratio of median ocular area, anterior width: posterior width: length=10: 9: 9. Leg formula 1, 4, 2, 3. Abdomen globular, longer than wide, higher than long, with many macrosetae. Genital organ as shown in Figs. 7-8.

Carapace grayish brown with a median and a marginal black flecks. Chelicerae, maxillae, labium and sternum grayish brown. Legs grayish brown; femora and first metatarsi with a ventral black spot near the distal end. Abdomen gray with white pigments and blackish flecks; venter with a large black fleck between epigynum and spinnerets; both sides of the spinnerets with black spots.

Male (allotype). Similar to female, but differs in the following points: Total length 2.68 mm. Carapace length 1.00 mm, width 0.92 mm. Abdomen length 1.58 mm, width 1.11 mm, height 0.78 mm. First leg: femur 1.95 mm; patella and tibia 2.21 mm; metatarsus 1.84 mm; tarsus 0.68 mm. Second patella and tibia 2.21 mm; metatarsus 1.84 mm; tarsus 0.68 mm. Second patella and tibia 1.42 mm; third patella and tibia 0.89 mm; fourth patella and tibia 1.32 mm.

Diameters of the anterior median eyes larger than the others (4: 3). Anterior median eyes three-fourths their diameter apart and one-fourth from laterals. Poste-



Figs. 6–9. *Theridion ogasawarense* sp. nov. — 6, Female, dorsal view; 7, epigynum, ventral view; 8, female genitalia, dorsal view; 9, male palpus, ventral view. (Scales: 0.2 mm except for Fig. 6, 1 mm.)

rior median eyes five-sixths their diameter apart and their diameter from laterals. Ratio of median ocular area, anterior width: posterior width: length=5: 4: 4. Leg formula 1, 2, 4, 3. Abdomen longer than high. Palpal organ as shown in Fig. 9; embolus long and thin, forming a large complete circle. Blackish flecks on the legs indistinct. Abdomen with large, distinct white pigments, and without black flecks.

Type series. Holotype: ♀ and allotype: ♂, Haha-jima Island, Bonin Islands, Japan, 11–III–1988, Norihisa TANAKA leg. (NSMT–Ar 3076–3077).

Distribution. Japan: Bonin Islands (Haha-jima Island).

Remarks. The present new species is similar to *T. pinastri* L. KOCH, 1872 in the shape of male palpus, but is distinguished from the latter by the median apophysis only with a projection extending ventrad. The coloration of the new species is also different from that of *T. pinastri*.

Etymology. The specific name is an adjective derived from the Bonin (Ogasawara) Islands.

摘 要

八重山諸島および小笠原諸島母島産のヒメグモ科ヒメグモ属に属する2新種を, *Theridion yaeyamense* sp. nov. (八重山諸島) ヤエヤマヒメグモ (新称), *Theridion ogasawarensense* sp. nov. (小笠原母島) オガサワラヒメグモ (新称) の名前で記載した. それぞれ雌と雄の生殖器により近似種と区別できる.

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